Hideki Kandori

List of Publications by Year
in descending order

324 papers	12,281 citations	26567 56 h-index	43802 91 g-index
345 all docs	345 docs citations	345 times ranked	5207 citing authors

#	Article	IF	Citations
1	A Unified View on Varied Ultrafast Dynamics of the Primary Process in Microbial Rhodopsins. Angewandte Chemie - International Edition, 2022, 61, .	7.2	12
2	Calcium Binding to TAT Rhodopsin. Journal of Physical Chemistry B, 2022, 126, 2203-2207.	1.2	5
3	Optogenetic reprogramming of carbon metabolism using light-powering microbial proton pump systems. Metabolic Engineering, 2022, 72, 227-236.	3.6	10
4	Saccharibacteria harness light energy using type-1 rhodopsins that may rely on retinal sourced from microbial hosts. ISME Journal, 2022, 16, 2056-2059.	4.4	13
5	Rhodopsin-bestrophin fusion proteins from unicellular algae form gigantic pentameric ion channels. Nature Structural and Molecular Biology, 2022, 29, 592-603.	3.6	23
6	<i>Cis</i>â€“<i>Trans</i> Reisomerization Precedes Reprotonation of the Retinal Chromophore in the Photocycle of Schizorhodopsin 4. Angewandte Chemie - International Edition, 2022, 61, .	7.2	9
7	Ion Transport Activity Assay for Microbial Rhodopsin Expressed in Escherichia coli Cells. Bio-protocol, 2021, 11, e4115.	0.2	2
8	Vibrational analysis of acetylcholine binding to the M₂ receptor. RSC Advances, 2021, 11, 12559-12567.	1.7	4
9	Role of Thr82 for the unique photochemistry of TAT rhodopsin. Biophysics and Physicobiology, 2021, 18, 108-115.	0.5	6
10	Molecular Properties and Optogenetic Applications of Enzymerhodopsins. Advances in Experimental Medicine and Biology, 2021, 1293, 153-165.	0.8	9
11	Light-induced difference FTIR spectroscopy of primate blue-sensitive visual pigment at 163 K. Biophysics and Physicobiology, 2021, 18, 40-49.	0.5	4
12	Specific residues in the cytoplasmic domain modulate photocurrent kinetics of channelrhodopsin from Klebsormidium nitens. Communications Biology, 2021, 4, 235.	2.0	17
13	Exploration of natural red-shifted rhodopsins using a machine learning-based Bayesian experimental design. Communications Biology, 2021, 4, 362.	2.0	15
14	Time-resolved serial femtosecond crystallography reveals early structural changes in channelrhodopsin. ELife, 2021, 10, .	2.8	41
15	TAT Rhodopsin Is an Ultraviolet-Dependent Environmental pH Sensor. Biochemistry, 2021, 60, 899-907.	1.2	9
16	Crystal structure of schizorhodopsin reveals mechanism of inward proton pumping. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	26
17	Resonance Raman Determination of Chromophore Structures of Heliorhodopsin Photointermediates. Journal of Physical Chemistry B, 2021, 125, 7155-7162.	1.2	9
18	Remote control of neural function by X-ray-induced scintillation. Nature Communications, 2021, 12, 4478.	5.8	50

#	Article	IF	Citations
19	Inverse Hydrogen-Bonding Change Between the Protonated Retinal Schiff Base and Water Molecules upon Photoisomerization in Heliorhodopsin 48C12. Journal of Physical Chemistry B, 2021, 125, 8331-8341.	1.2	9
20	Microbial Rhodopsins: The Last Two Decades. Annual Review of Microbiology, 2021, 75, 427-447.	2.9	98
21	Orientations and water dynamics of photoinduced secondary charge-separated states for magnetoreception by cryptochrome. Communications Chemistry, 2021, 4, .	2.0	6
22	Ion transport activity and optogenetics capability of light-driven Na+-pump KR2. PLoS ONE, 2021, 16, e0256728.	1.1	9
23	History and Perspectives of Ion-Transporting Rhodopsins. Advances in Experimental Medicine and Biology, 2021, 1293, 3-19.	0.8	8
24	Strongly Hydrogen-Bonded Schiff Base and Adjoining Polyene Twisting in the Retinal Chromophore of Schizorhodopsins. Biochemistry, 2021, 60, 3050-3057.	1.2	10
25	Pro219 is an electrostatic color determinant in the light-driven sodium pump KR2. Communications Biology, 2021, 4, 1185.	2.0	9
26	Structural Changes during the Photorepair and Binding Processes of Xenopus (6â€"4) Photolyase with (6â€"4) Photoproducts in Single- and Double-Stranded DNA. Biochemistry, 2021, 60, 3253-3261.	1.2	4
27	Vibrational spectroscopy analysis of ligand efficacy in human M2 muscarinic acetylcholine receptor (M2R). Communications Biology, 2021, 4, 1321.	2.0	6
28	Heliorhodopsin Evolution Is Driven by Photosensory Promiscuity in Monoderms. MSphere, 2021, 6, e0066121.	1.3	14
29	Molecular Origin of the Anomalous pH Effect in Blue Proteorhodopsin. Journal of Physical Chemistry Letters, 2021, 12, 12225-12229.	2.1	1
30	Retinal Vibrations in Bacteriorhodopsin are Mechanically Harmonic but Electrically Anharmonic: Evidence From Overtone and Combination Bands. Frontiers in Molecular Biosciences, 2021, 8, 749261.	1.6	3
31	Retinal Proteins: Photochemistry and Optogenetics. Bulletin of the Chemical Society of Japan, 2020, 93, 76-85.	2.0	36
32	Allosteric Communication with the Retinal Chromophore upon Ion Binding in a Light-Driven Sodium Ion-Pumping Rhodopsin. Biochemistry, 2020, 59, 520-529.	1.2	15
33	Structural basis for unique color tuning mechanism in heliorhodopsin. Biochemical and Biophysical Research Communications, 2020, 533, 262-267.	1.0	14
34	Structure/Function Study of Photoreceptive Proteins by FTIR Spectroscopy. Bulletin of the Chemical Society of Japan, 2020, 93, 904-926.	2.0	31
35	Unique Retinal Binding Pocket of Primate Blue-Sensitive Visual Pigment. Biochemistry, 2020, 59, 2602-2607.	1.2	4
36	Active Learning of Bayesian Linear Models with High-Dimensional Binary Features by Parameter Confidence-Region Estimation. Neural Computation, 2020, 32, 1998-2031.	1.3	0

#	Article	IF	Citations
37	Disruption of Hydrogen-Bond Network in Rhodopsin Mutations Cause Night Blindness. Journal of Molecular Biology, 2020, 432, 5378-5389.	2.0	4
38	Zinc Binding to Heliorhodopsin. Journal of Physical Chemistry Letters, 2020, 11, 8604-8609.	2.1	17
39	ATP binding promotes light-induced structural changes to the protein moiety of Arabidopsis cryptochrome 1. Photochemical and Photobiological Sciences, 2020, 19, 1326-1331.	1.6	3
40	Structural insights into the mechanism of rhodopsin phosphodiesterase. Nature Communications, 2020, 11, 5605.	5.8	30
41	Gate-keeper of ion transportâ€"a highly conserved helix-3 tryptophan in a channelrhodopsin chimera, C1C2/ChRWR. Biophysics and Physicobiology, 2020, 17, 59-70.	0.5	5
42	Infrared spectroscopic analysis on structural changes around the protonated Schiff base upon retinal isomerization in light-driven sodium pump KR2. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148190.	0.5	15
43	Novel optogenetics tool: Gt_CCR4, a light-gated cation channel with high reactivity to weak light. Biophysical Reviews, 2020, 12, 453-459.	1.5	13
44	Light-induced difference Fourier-transform infrared spectroscopy of photoreceptive proteins. , 2020, , 23-57.		1
45	Biophysics of rhodopsins and optogenetics. Biophysical Reviews, 2020, 12, 355-361.	1.5	46
46	Structureâ€affinity insights into the Na+and Ca2+interactions with multiple sites of a sodiumâ€calcium exchanger. FEBS Journal, 2020, 287, 4678-4695.	2.2	10
47	Molecular Properties of New Enzyme Rhodopsins with Phosphodiesterase Activity. ACS Omega, 2020, 5, 10602-10609.	1.6	10
48	Schizorhodopsins: A family of rhodopsins from Asgard archaea that function as light-driven inward H ⁺ pumps. Science Advances, 2020, 6, eaaz2441.	4.7	65
49	Mechanism of Inward Proton Transport in an Antarctic Microbial Rhodopsin. Journal of Physical Chemistry B, 2020, 124, 4851-4872.	1.2	29
50	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. PLoS ONE, 2020, 15, e0243387.	1.1	2
51	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0
52	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0
53	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0
54	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0

#	Article	IF	Citations
55	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0
56	Expression analysis of microbial rhodopsin-like genes in Guillardia theta. , 2020, 15, e0243387.		0
57	Essential ion binding residues for Na+ flow in stator complex of the Vibrio flagellar motor. Scientific Reports, 2019, 9, 11216.	1.6	34
58	Unique Photochemistry Observed in a New Microbial Rhodopsin. Journal of Physical Chemistry Letters, 2019, 10, 5117-5121.	2.1	11
59	X-ray Crystallographic Structure and Oligomerization of Gloeobacter Rhodopsin. Scientific Reports, 2019, 9, 11283.	1.6	46
60	FTIR Study of S180A Mutant of Primate Red-sensitive Pigment. Chemistry Letters, 2019, 48, 1142-1144.	0.7	7
61	Ion Channel Properties of a Cation Channelrhodopsin, Gt_CCR4. Applied Sciences (Switzerland), 2019, 9, 3440.	1.3	19
62	Ligand Binding-Induced Structural Changes in the M2Muscarinic Acetylcholine Receptor Revealed by Vibrational Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 7270-7276.	2.1	9
63	Mapping the ultrafast vibrational dynamics of all-trans and 13-Cis retinal isomerization in Anabaena Sensory Rhodopsin. EPJ Web of Conferences, 2019, 205, 10001.	0.1	1
64	Anabaena Sensory Rhodopsin: Effect of point mutations on PSBR photo-isomerization speed. EPJ Web of Conferences, 2019, 205, 10004.	0.1	0
65	Role of Gln114 in Spectral Tuning of a Long-Wavelength Sensitive Visual Pigment. Biochemistry, 2019, 58, 2944-2952.	1.2	14
66	Engineered Functional Recovery of Microbial Rhodopsin Without Retinalâ€Binding Lysine. Photochemistry and Photobiology, 2019, 95, 1116-1121.	1.3	7
67	Introduction to the Biophysical Society of Japan (BSJ). Biophysical Reviews, 2019, 11, 265-266.	1.5	1
68	Red-shifting mutation of light-driven sodium-pump rhodopsin. Nature Communications, 2019, 10, 1993.	5.8	53
69	Casting light on Asgardarchaeota metabolism in a sunlit microoxic niche. Nature Microbiology, 2019, 4, 1129-1137.	5.9	96
70	Distortion and a Strong Hydrogen Bond in the Retinal Chromophore Enable Sodium-Ion Transport by the Sodium-Ion Pump KR2. Journal of Physical Chemistry B, 2019, 123, 3430-3440.	1.2	36
71	Ultrafast Dynamics of Heliorhodopsins. Journal of Physical Chemistry B, 2019, 123, 2507-2512.	1.2	24
72	Point Mutation of <i>Anabaena</i> Sensory Rhodopsin Enhances Ground-State Hydrogen Out-of-Plane Wag Raman Activity. Journal of Physical Chemistry Letters, 2019, 10, 1012-1017.	2.1	6

#	Article	IF	Citations
73	Spectroscopic study of the transmembrane domain of a rhodopsinâ€"phosphodiesterase fusion protein from a unicellular eukaryote. Journal of Biological Chemistry, 2019, 294, 3432-3443.	1.6	22
74	Acidâ€"base equilibrium of the chromophore counterion results in distinct photoisomerization reactivity in the primary event of proteorhodopsin. Physical Chemistry Chemical Physics, 2019, 21, 25728-25734.	1.3	9
75	Crystal structure of heliorhodopsin. Nature, 2019, 574, 132-136.	13.7	71
76	Anion binding to mutants of the Schiff base counterion in heliorhodopsin 48C12. Physical Chemistry Chemical Physics, 2019, 21, 23663-23671.	1.3	18
77	Effect of a bound anion on the structure and dynamics of halorhodopsin from Natronomonas pharaonis. Structural Dynamics, 2019, 6, 054703.	0.9	4
78	Heliorhodopsins are absent in diderm (Gramâ€negative) bacteria: Some thoughts and possible implications for activity. Environmental Microbiology Reports, 2019, 11, 419-424.	1.0	29
79	Fluorescence Enhancement of a Microbial Rhodopsin via Electronic Reprogramming. Journal of the American Chemical Society, 2019, 141, 262-271.	6.6	40
80	Light-Driven Sodium-Pumping Rhodopsin: A New Concept of Active Transport. Chemical Reviews, 2018, 118, 10646-10658.	23.0	70
81	Long-distance perturbation on Schiff baseâ€"counterion interactions by His30 and the extracellular Na⁺-binding site in <i>Krokinobacter</i> rhodopsin 2. Physical Chemistry Chemical Physics, 2018, 20, 8450-8455.	1.3	15
82	Structural Evolution of a Retinal Chromophore in the Photocycle of Halorhodopsin from <i>Natronobacterium pharaonis</i>. Journal of Physical Chemistry A, 2018, 122, 2411-2423.	1.1	21
83	Potential Second-Harmonic Ghost Bands in Fourier Transform Infrared (FT-IR) Difference Spectroscopy of Proteins. Applied Spectroscopy, 2018, 72, 956-963.	1.2	6
84	â€œ<i>In situ</i>â€•observation of the role of chloride ion binding to monkey green sensitive visual pigment by ATR-FTIR spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 3381-3387.	1.3	14
85	Effect of Temperature and Hydration Level on Purple Membrane Dynamics Studied Using Broadband Dielectric Spectroscopy from Sub-GHz to THz Regions. Journal of Physical Chemistry B, 2018, 122, 1367-1377.	1.2	15
86	Origin of the Reactive and Nonreactive Excited States in the Primary Reaction of Rhodopsins: pH Dependence of Femtosecond Absorption of Light-Driven Sodium Ion Pump Rhodopsin KR2. Journal of Physical Chemistry B, 2018, 122, 4784-4792.	1.2	28
87	Low-temperature FTIR spectroscopy provides evidence for protein-bound water molecules in eubacterial light-driven ion pumps. Physical Chemistry Chemical Physics, 2018, 20, 3165-3171.	1.3	13
88	Unique Hydrogen Bonds in Membrane Protein Monitored by Whole Mid-IR ATR Spectroscopy in Aqueous Solution. Journal of Physical Chemistry B, 2018, 122, 165-170.	1.2	19
89	Effect of point mutations on the ultrafast photo-isomerization of Anabaena sensory rhodopsin. Faraday Discussions, 2018, 207, 55-75.	1.6	18
90	Mapping the ultrafast vibrational dynamics of all-<i>trans</i>and 13-<i>cis</i>retinal isomerization in Anabaena Sensory Rhodopsin. Physical Chemistry Chemical Physics, 2018, 20, 30159-30173.	1.3	16

#	Article	IF	Citations
91	Understanding Colour Tuning Rules and Predicting Absorption Wavelengths of Microbial Rhodopsins by Data-Driven Machine-Learning Approach. Scientific Reports, 2018, 8, 15580.	1.6	35
92	Resonance Raman Investigation of the Chromophore Structure of Heliorhodopsins. Journal of Physical Chemistry Letters, 2018, 9, 6431-6436.	2.1	33
93	Zn²⁺-Binding to the Voltage-Gated Proton Channel Hv1/VSOP. Journal of Physical Chemistry B, 2018, 122, 9076-9080.	1.2	18
94	Structural mechanisms of selectivity and gating in anion channelrhodopsins. Nature, 2018, 561, 349-354.	13.7	67
95	Crystal structure of the natural anion-conducting channelrhodopsin GtACR1. Nature, 2018, 561, 343-348.	13.7	93
96	Hydrogen Bonding Environments in the Photocycle Process around the Flavin Chromophore of the AppA-BLUF domain. Journal of the American Chemical Society, 2018, 140, 11982-11991.	6.6	39
97	Spectroscopic Study of Proton-Transfer Mechanism of Inward Proton-Pump Rhodopsin, <i>Parvularcula oceani</i> Xenorhodopsin. Journal of Physical Chemistry B, 2018, 122, 6453-6461.	1.2	30
98	Oligomeric states of microbial rhodopsins determined by high-speed atomic force microscopy and circular dichroic spectroscopy. Scientific Reports, 2018, 8, 8262.	1.6	76
99	Hydrogen-bonding network at the cytoplasmic region of a light-driven sodium pump rhodopsin KR2. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 684-691.	0.5	13
100	Mutation Study of Heliorhodopsin 48C12. Biochemistry, 2018, 57, 5041-5049.	1.2	32
101	Production of a Light-Gated Proton Channel by Replacing the Retinal Chromophore with Its Synthetic Vinylene Derivative. Journal of Physical Chemistry Letters, 2018, 9, 2857-2862.	2.1	12
102	A distinct abundant group of microbial rhodopsins discovered using functional metagenomics. Nature, 2018, 558, 595-599.	13.7	190
103	Time-resolved FTIR study of light-driven sodium pump rhodopsins. Physical Chemistry Chemical Physics, 2018, 20, 17694-17704.	1.3	25
104	Hydrogen Bonding Environment of the N3â€“H Group of Flavin Mononucleotide in the Light Oxygen Voltage Domains of Phototropins. Biochemistry, 2017, 56, 3099-3108.	1.2	7
105	Electron Fate and Mutational Robustness in the Mechanism of (6-4)Photolyase-Mediated DNA Repair. ACS Catalysis, 2017, 7, 4835-4845.	5.5	11
106	FTIR Analysis of a Lightâ€driven Inward Protonâ€pumping Rhodopsin at 77 K. Photochemistry and Photobiology, 2017, 93, 1381-1387.	1.3	20
107	A unique choanoflagellate enzyme rhodopsin exhibits light-dependent cyclic nucleotide phosphodiesterase activity. Journal of Biological Chemistry, 2017, 292, 7531-7541.	1.6	74
108	Solid-State Nuclear Magnetic Resonance Structural Study of the Retinal-Binding Pocket in Sodium Ion Pump Rhodopsin. Biochemistry, 2017, 56, 543-550.	1.2	26

#	Article	IF	Citations
109	Spectral Tuning Mechanism of Primate Blue-sensitive Visual Pigment Elucidated by FTIR Spectroscopy. Scientific Reports, 2017, 7, 4904.	1.6	22
110	Conversion of microbial rhodopsins: insights into functionally essential elements and rational protein engineering. Biophysical Reviews, 2017, 9, 861-876.	1.5	19
111	Chimeric microbial rhodopsins for optical activation of Gs-proteins. Biophysics and Physicobiology, 2017, 14, 183-190.	0.5	4
112	Molecular properties of a DTD channelrhodopsin from <i>Guillardia theta</i>. Biophysics and Physicobiology, 2017, 14, 57-66.	0.5	37
113	Functional characterization of sodium-pumping rhodopsins with different pumping properties. PLoS ONE, 2017, 12, e0179232.	1.1	26
114	Asymmetric Functional Conversion of Eubacterial Light-driven Ion Pumps. Journal of Biological Chemistry, 2016, 291, 9883-9893.	1.6	48
115	Role of Asn112 in a Light-Driven Sodium Ion-Pumping Rhodopsin. Biochemistry, 2016, 55, 5790-5797.	1.2	27
116	The photochemistry of sodium ion pump rhodopsin observed by watermarked femto- to submillisecond stimulated Raman spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 24729-24736.	1.3	54
117	The lightâ€driven sodium ion pump: A new player in rhodopsin research. BioEssays, 2016, 38, 1274-1282.	1.2	23
118	A natural light-driven inward proton pump. Nature Communications, 2016, 7, 13415.	5.8	124
119	Functional Conversion of CPD and (6â€“4) Photolyases by Mutation. Biochemistry, 2016, 55, 4173-4183.	1.2	20
120	Toward Automatic Rhodopsin Modeling as a Tool for High-Throughput Computational Photobiology. Journal of Chemical Theory and Computation, 2016, 12, 6020-6034.	2.3	61
121	Light-induced structural changes during early photo-intermediates of the eubacterial Cl^{âˆ’}pump Fulvimarina rhodopsin observed by FTIR difference spectroscopy. RSC Advances, 2016, 6, 383-392.	1.7	6
122	Mutant of a Light-Driven Sodium Ion Pump Can Transport Cesium Ions. Journal of Physical Chemistry Letters, 2016, 7, 51-55.	2.1	42
123	Structural Changes of the Active Center during the Photoactivation of <i>Xenopus</i> (6â€“4) Photolyase. Biochemistry, 2016, 55, 715-723.	1.2	8
124	Single Hydrogen Bond Donation from Flavin N₅ to Proximal Asparagine Ensures FAD Reduction in DNA Photolyase. Journal of the American Chemical Society, 2016, 138, 4368-4376.	6.6	29
125	A Chimera Na+-Pump Rhodopsin as an Effective Optogenetic Silencer. PLoS ONE, 2016, 11, e0166820.	1.1	28
126	Na+ Transport by a Sodium Ion Pump Rhodopsin is Resistant to Environmental Change: A Comparison of the Photocycles of the Na+ and Li+ Transport Processes. Chemistry Letters, 2015, 44, 294-296.	0.7	8

#	Article	IF	Citations
127	Structural role of two histidines in the (6-4) photolyase reaction. Biophysics and Physicobiology, 2015, 12, 139-144.	0.5	8
128	Ion-pumping microbial rhodopsins. Frontiers in Molecular Biosciences, 2015, 2, 52.	1.6	98
129	Identical Hydrogen-Bonding Strength of the Retinal Schiff Base between Primate Green- and Red-Sensitive Pigments: New Insight into Color Tuning Mechanism. Journal of Physical Chemistry Letters, 2015, 6, 1130-1133.	2.1	20
130	FTIR study of CPD photolyase with substrate in single strand DNA. Biophysics (Nagoya-shi, Japan), 2015, 11, 39-45.	0.4	12
131	Kinetic Analysis of H⁺â€“Na⁺ Selectivity in a Light-Driven Na⁺-Pumping Rhodopsin. Journal of Physical Chemistry Letters, 2015, 6, 5111-5115.	2.1	49
132	FTIR study of primate color visual pigments. Biophysics (Nagoya-shi, Japan), 2015, 11, 61-66.	0.4	3
133	Converting a Light-Driven Proton Pump into a Light-Gated Proton Channel. Journal of the American Chemical Society, 2015, 137, 3291-3299.	6.6	52
134	Structural basis for Na+ transport mechanism by a light-driven Na+ pump. Nature, 2015, 521, 48-53.	13.7	224
135	The Role of the NDQ Motif in Sodiumâ€Pumping Rhodopsins. Angewandte Chemie - International Edition, 2015, 54, 11536-11539.	7.2	42
136	Ultrafast Photoreaction Dynamics of a Light-Driven Sodium-Ion-Pumping Retinal Protein from <i>Krokinobacter eikastus</i> Revealed by Femtosecond Time-Resolved Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2015, 6, 4481-4486.	2.1	51
137	A new group of eubacterial light-driven retinal-binding proton pumps with an unusual cytoplasmic proton donor. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1518-1529.	0.5	35
138	100 fs photo-isomerization with vibrational coherences but low quantum yield in Anabaena Sensory Rhodopsin. Physical Chemistry Chemical Physics, 2015, 17, 25429-25439.	1.3	27
139	Light-driven ion-translocating rhodopsins in marine bacteria. Trends in Microbiology, 2015, 23, 91-98.	3.5	97
140	Infrared spectroscopic studies on the V-ATPase. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 134-141.	0.5	8
141	History and Perspectives of Light-Sensing Proteins. , 2015, , 3-16.		5
142	Chimeric Proton-Pumping Rhodopsins Containing the Cytoplasmic Loop of Bovine Rhodopsin. PLoS ONE, 2014, 9, e91323.	1.1	16
143	Intramolecular Interactions That Induce Helical Rearrangement upon Rhodopsin Activation. Journal of Biological Chemistry, 2014, 289, 13792-13800.	1.6	11
144	Mapping of the local environmental changes in proteins by cysteine scanning. Biophysics (Nagoya-shi,) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.4	5

#	Article	IF	Citations
145	Hydrogen-bonding changes of internal water molecules upon the actions of microbial rhodopsins studied by FTIR spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 598-605.	0.5	29
146	Microbial and Animal Rhodopsins: Structures, Functions, and Molecular Mechanisms. Chemical Reviews, 2014, 114, 126-163.	23.0	897
147	Spectroscopic Study of a Light-Driven Chloride Ion Pump from Marine Bacteria. Journal of Physical Chemistry B, 2014, 118, 11190-11199.	1.2	49
148	Flavin Adenine Dinucleotide Chromophore Charge Controls the Conformation of Cyclobutane Pyrimidine Dimer Photolyase Î±-Helices. Biochemistry, 2014, 53, 5864-5875.	1.2	13
149	Water-Containing Hydrogen-Bonding Network in the Active Center of Channelrhodopsin. Journal of the American Chemical Society, 2014, 136, 3475-3482.	6.6	59
150	A Color-Determining Amino Acid Residue of Proteorhodopsin. Biochemistry, 2014, 53, 6032-6040.	1.2	34
151	FTIR Spectroscopy of a Light-Driven Compatible Sodium Ion-Proton Pumping Rhodopsin at 77 K. Journal of Physical Chemistry B, 2014, 118, 4784-4792.	1.2	51
152	His166 Is the Schiff Base Proton Acceptor in Attractant Phototaxis Receptor Sensory Rhodopsin I. Biochemistry, 2014, 53, 5923-5929.	1.2	8
153	FTIR Spectroscopy of Flavin-Binding Photoreceptors. Methods in Molecular Biology, 2014, 1146, 361-376.	0.4	15
154	Discovery of Sodium Ion Pump Rhodopsin. Seibutsu Butsuri, 2014, 54, 106-107.	0.0	0
155	Role of trimerâ€"trimer interaction of bacteriorhodopsin studied by optical spectroscopy and high-speed atomic force microscopy. Journal of Structural Biology, 2013, 184, 2-11.	1.3	45
156	Steady state emission of the fluorescent intermediate of Anabaena Sensory Rhodopsin as a function of light adaptation conditions. Chemical Physics Letters, 2013, 587, 75-80.	1.2	12
157	A Blue-shifted Light-driven Proton Pump for Neural Silencing. Journal of Biological Chemistry, 2013, 288, 20624-20632.	1.6	65
158	A light-driven sodium ion pump in marine bacteria. Nature Communications, 2013, 4, 1678.	5.8	360
159	Detection of Distinct Î±-Helical Rearrangements of Cyclobutane Pyrimidine Dimer Photolyase upon Substrate Binding by Fourier Transform Infrared Spectroscopy. Biochemistry, 2013, 52, 1019-1027.	1.2	20
160	Thermal and Spectroscopic Characterization of a Proton Pumping Rhodopsin from an Extreme Thermophile. Journal of Biological Chemistry, 2013, 288, 21581-21592.	1.6	55
161	Structural basis for dynamic mechanism of proton-coupled symport by the peptide transporter POT. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11343-11348.	3.3	197
162	Detection of a protein-bound water vibration of halorhodopsin in aqueous solution. Biophysics (Nagoya-shi, Japan), 2013, 9, 167-172.	0.4	7

#	Article	IF	Citations
163	Dynamics of Dangling Bonds of Water Molecules in <i>pharaonis</i> Halorhodopsin during Chloride Ion Transportation. Journal of Physical Chemistry Letters, 2012, 3, 2964-2969.	2.1	26
164	Comparative FTIR Study of a New Fungal Rhodopsin. Journal of Physical Chemistry B, 2012, 116, 11881-11889.	1.2	10
165	Protein-Bound Water as the Determinant of Asymmetric Functional Conversion between Light-Driven Proton and Chloride Pumps. Biochemistry, 2012, 51, 4677-4684.	1.2	50
166	ATR-FTIR Spectroscopy Revealing the Different Vibrational Modes of the Selectivity Filter Interacting with K⁺ and Na⁺ in the Open and Collapsed Conformations of the KcsA Potassium Channel. Journal of Physical Chemistry Letters, 2012, 3, 3806-3810.	2.1	32
167	Protein-Bound Water Molecules in Primate Red- and Green-Sensitive Visual Pigments. Biochemistry, 2012, 51, 1126-1133.	1.2	33
168	Fourier-Transform Infrared Study of the Photoactivation Process of <i>Xenopus</i> (6â€“4) Photolyase. Biochemistry, 2012, 51, 5774-5783.	1.2	18
169	Anomalous pH Effect of Blue Proteorhodopsin. Journal of Physical Chemistry Letters, 2012, 3, 800-804.	2.1	5
170	L105K Mutant of Proteorhodopsin. Biochemistry, 2012, 51, 3198-3204.	1.2	8
171	Color Vision: â€œOH-Siteâ€•Rule for Seeing Red and Green. Journal of the American Chemical Society, 2012, 134, 10706-10712.	6.6	55
172	Substrate Assignment of the (6-4) Photolyase Reaction by FTIR Spectroscopy. Journal of Physical Chemistry Letters, 2011, 2, 2774-2777.	2.1	15
173	Sodium or Lithium Ion-Binding-Induced Structural Changes in the K-Ring of V-ATPase from Enterococcus hirae Revealed by ATR-FTIR Spectroscopy. Journal of the American Chemical Society, 2011, 133, 2860-2863.	6.6	32
174	Chimeric Microbial Rhodopsins Containing the Third Cytoplasmic Loop of Bovine Rhodopsin. Biophysical Journal, 2011, 100, 1874-1882.	0.2	15
175	FTIR Study of Light-Dependent Activation and DNA Repair Processes of (6â€“4) Photolyase. Biochemistry, 2011, 50, 3591-3598.	1.2	23
176	Strong Donation of the Hydrogen Bond of Tyrosine during Photoactivation of the BLUF Domain. Journal of Physical Chemistry Letters, 2011, 2, 1015-1019.	2.1	47
177	An inward proton transport using anabaena sensory rhodopsin. Journal of Microbiology, 2011, 49, 1-6.	1.3	10
178	Structural Changes in Bacteriorhodopsin in Response to Alternate Illumination Observed by Highâ€Speed Atomic Force Microscopy. Angewandte Chemie - International Edition, 2011, 50, 4410-4413.	7.2	54
179	A Microbial Rhodopsin with a Unique Retinal Composition Shows Both Sensory Rhodopsin II and Bacteriorhodopsin-like Properties. Journal of Biological Chemistry, 2011, 286, 5967-5976.	1.6	62
180	An FTIR Study of Monkey Greenâ€•and Redâ€Sensitive Visual Pigments. Angewandte Chemie - International Edition, 2010, 49, 891-894.	7.2	33

#	Article	IF	Citations
181	High-speed atomic force microscopy shows dynamic molecular processes in photoactivated bacteriorhodopsin. Nature Nanotechnology, 2010, 5, 208-212.	15.6	292
182	3P273 Proteorhodopsin functions as a light-driven proton pump in native cell membranes(Photobiology: Vision & Photoreception,The 48th Annual Meeting of the Biophysical Society) Tj ETQq0 0 0 rgBT /Overlock 10	0.0	0
183	Protein-Protein Interaction Changes in an Archaeal Light-Signal Transduction. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-14.	3.0	5
184	Protein Fluctuations as the Possible Origin of the Thermal Activation of Rod Photoreceptors in the Dark. Journal of the American Chemical Society, 2010, 132, 5693-5703.	6.6	37
185	Key Dynamics of Conserved Asparagine in a Cryptochrome/Photolyase Family Protein by Fourier Transform Infrared Spectroscopy. Biochemistry, 2010, 49, 8882-8891.	1.2	34
186	Low-Temperature FTIR Study of Gloeobacter Rhodopsin: Presence of Strongly Hydrogen-Bonded Water and Long-Range Structural Protein Perturbation upon Retinal Photoisomerization. Biochemistry, 2010, 49, 3343-3350.	1.2	39
187	Low-frequency dynamics of bacteriorhodopsin studied by terahertz time-domain spectroscopy. Physical Chemistry Chemical Physics, 2010, 12, 10255.	1.3	22
188	Importance of Alanine at Position 178 in Proteorhodopsin for Absorption of Prevalent Ambient Light in the Marine Environment. Biochemistry, 2010, 49, 2416-2423.	1.2	15
189	Engineering an Inward Proton Transport Protein. Seibutsu Butsuri, 2010, 50, 236-237.	0.0	0
190	Photoreactions and Structural Changes of Anabaena Sensory Rhodopsin. Sensors, 2009, 9, 9741-9804.	2.1	34
191	Manipulation of protein-complex function by using an engineered heterotrimeric coiled-coil switch. Organic and Biomolecular Chemistry, 2009, 7, 3102.	1.5	4
192	Different Role of the JÎ± Helix in the Light-Induced Activation of the LOV2 Domains in Various Phototropins. Biochemistry, 2009, 48, 7621-7628.	1.2	31
193	Proton Release Group of <i>pharaonis</i> Phoborhodopsin Revealed by ATR-FTIR Spectroscopy. Biochemistry, 2009, 48, 1595-1603.	1.2	28
194	Effects of Chloride Ion Binding on the Photochemical Properties of Salinibacter Sensory Rhodopsin I. Journal of Molecular Biology, 2009, 392, 48-62.	2.0	37
195	Light Signal Transduction Pathway from Flavin Chromophore to the JÎ± Helix of Arabidopsis Phototropin1. Biophysical Journal, 2009, 96, 2771-2778.	0.2	54
196	Engineering an Inward Proton Transport from a Bacterial Sensor Rhodopsin. Journal of the American Chemical Society, 2009, 131, 16439-16444.	6.6	60
197	Spectroscopic and Kinetic Evidence on How Bacteriorhodopsin Accomplishes Vectorial Proton Transport under Functional Conditions. Journal of the American Chemical Society, 2009, 131, 5891-5901.	6.6	58
198	Interaction between Na⁺ Ion and Carboxylates of the PomAâˆ'PomB Stator Unit Studied by ATR-FTIR Spectroscopy. Biochemistry, 2009, 48, 11699-11705.	1.2	55

#	Article	IF	Citations
199	Color Change of Proteorhodopsin by a Single Amino Acid Replacement at a Distant Cytoplasmic Loop. Angewandte Chemie - International Edition, 2008, 47, 3923-3926.	7.2	35
200	Quantum yields for the light adaptations in Anabaena sensory rhodopsin and bacteriorhodopsin. Chemical Physics Letters, 2008, 453, 105-108.	1.2	19
201	Proteinâ€“Protein Interaction of a <i>Pharaonis</i> Halorhodopsin Mutant Forming a Complex with <i>Pharaonis</i> Halobacterial Transducer Protein II Detected by Fourierâ€Transform Infrared Spectroscopy^{â€}. Photochemistry and Photobiology, 2008, 84, 874-879.	1.3	3
202	Role of Phe1010 in Light-Induced Structural Changes of the neo1-LOV2 Domain of Adiantum. Biochemistry, 2008, 47, 922-928.	1.2	34
203	Active Internal Waters in the Bacteriorhodopsin Photocycle. A Comparative Study of the L and M Intermediates at Room and Cryogenic Temperatures by Infrared Spectroscopy. Biochemistry, 2008, 47, 4071-4081.	1.2	65
204	Structural Changes of Salinibacter Sensory Rhodopsin I upon Formation of the K and M Photointermediates. Biochemistry, 2008, 47, 12750-12759.	1.2	27
205	Ultrafast Pumpâˆ’Probe Study of the Primary Photoreaction Process in <i>pharaonis</i> Halorhodopsin: Halide Ion Dependence and Isomerization Dynamics. Journal of Physical Chemistry B, 2008, 112, 12795-12800.	1.2	41
206	Salinibacter Sensory Rhodopsin. Journal of Biological Chemistry, 2008, 283, 23533-23541.	1.6	61
207	2P-254 Hydration dependent thermal equilibrium of retinal configuration between all-trans and 13-cis forms in Gloeobacter Rhodopsin(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S114.	0.0	0
208	2P336 Characteristics of the Rhodopsin Chromophore in Clay Interlayers(Photobiology-photosynthesis, and vision and photoreception,Oral Presentations). Seibutsu Butsuri, 2007, 47, S197.	0.0	0
209	2P357 The transduction mechanism of light-induced conformational changes from the LOV2 domain to the Jî± helix in Arabidopsis phot1(Photobiology-Photosynthesis, and vision and photoreception,Oral) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
210	3P229 Protein-protein interaction in the pharaonis phoborhodopsin-pHtrII complex under the aqueous environment studied by ATR-FTIR spectroscopy(Photobiology- vision and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 Td (photor	0.0	0
211	2P337 Structural fluctuations affecting the retinal-binding pocket in bovine rhodopsin studied by hydrogen/deuterium exchange of Thr118(Photobiology-vision and photoreception,Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.0	0
212	3P224 FTIR Study of Nitrate-bound pharaonis Halorhodopsin(Photobiology- vision and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td (ph	0.0	0
213	3P226 Ultrafast Pump-Probe Study of Primary Reaction Dynamics of Halorhodopsin : Halide Dependence and Isomerization Dynamics(Photobiology- vision and photoreception,Poster Presentations). Seibutsu Butsuri, 2007, 47, S259.	0.0	0
214	3P234 Structural changes in the cytoplasmic region of the L photointermediate of Anabaena sensory rhodopsin(Photobiology- vision and photoreception. Actinobiology,Oral Presentations). Seibutsu Butsuri, 2007, 47, S261.	0.0	0
215	3P242 A Proteorhodopsin mutant engineered like a "dry-battery"(Photobiology- vision and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	0.0	0
216	S05I1 FT-IR Study of Protein-Protein Interaction : Rhodopsin as a Model System(Vibrational) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	0.0	0

#	Article	IF	Citations
217	3P235 Structural and Interaction Changes of Sensory Rhodopsin I with its Transducer Protein studied by FTIR Spectroscopy.(Photobiology- vision and photoreception,Poster Presentations). Seibutsu Butsuri, 2007, 47, S261.	0.0	0
218	S1I4 How do molecular pumps work?(Discussion on the mechanisms of energy / signal transductions) Tj ETQq0 0 0 rgBT /Overlock 10	0.0	0
219	3P225 Role of proline in the chloride pump of pharaonis Halorhodopsin(Photobiology- vision and) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
220	3P236 Specific Protein-Chromophore Interaction Initiates Light Signal Transduction of pharaonis Sensory Rhodopsin II(Photobiology- vision and photoreception. Actinobiology,Oral Presentations). Seibutsu Butsuri, 2007, 47, S262.	0.0	0
221	3P240 The Proton Donor for the Schiff base is perturbed upon retinal photoisomerization in Gloeobacter rhodopsin(Photobiology- vision and photoreception. Actinobiology,Oral Presentations). Seibutsu Butsuri, 2007, 47, S263.	0.0	0
222	2P332 Water Molecules around the Secondary Quinone (Q_B) Binding Pockets in the Reaction Center from Rhodobacter sphaeroides(Photobiology-photosynthesis, and vision and photoreception,Oral) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.0	0
223	Hydration and Temperature Similarly Affect Light-Induced Protein Structural Changes in the Chromophoric Domain of Phototropin. Biochemistry, 2007, 46, 7016-7021.	1.2	20
224	Halide Binding by the D212N Mutant of Bacteriorhodopsin Affects Hydrogen Bonding of Water in the Active Site. Biochemistry, 2007, 46, 7525-7535.	1.2	37
225	Heterogeneous Environment of the Sâˆ'H Group of Cys966 near the Flavin Chromophore in the LOV2 Domain of Adiantum Neochrome1. Biochemistry, 2007, 46, 10258-10265.	1.2	25
226	FTIR Study of the Retinal Schiff Base and Internal Water Molecules of Proteorhodopsin. Biochemistry, 2007, 46, 5365-5373.	1.2	73
227	Photochromism ofAnabaenaSensory Rhodopsin. Journal of the American Chemical Society, 2007, 129, 8644-8649.	6.6	71
228	2P359 Light-induced structural changes of the LOV2 domain and the JÎ± helix in various phototropins(Photobiology-vision and photoreception,Poster Presentations). Seibutsu Butsuri, 2007, 47, S202.	0.0	0
229	The Determinant of Light-Energy and Light-Signal Conversion in Rhodopsins. AIP Conference Proceedings, 2007, , .	0.3	0
230	FTIR Studies of Internal Water Molecules of Bacteriorhodopsin: Structural Analysis of Halide-bound D85S and D212N Mutants in the Schiff Base Region. AIP Conference Proceedings, 2007, , .	0.3	0
231	Clay Mimics Color Tuning in Visual Pigments. Angewandte Chemie - International Edition, 2007, 46, 8010-8012.	7.2	21
232	Magnetic and Infrared Properties of the Azide Complex of (2,7,12,17-Tetrapropylporphycenato)iron(III): A Novel Admixing Mechanism of theS = 5/2 andS = 3/2 States. European Journal of Inorganic Chemistry, 2007, 2007, 3188-3194.	1.0	27
233	Primary Processes During the Light-signal Transduction of Phototropin. Photochemistry and Photobiology, 2007, 83, 470-470.	1.3	24
234	Hydrogen-Bonding Interaction of the Protonated Schiff Base with Halides in a Chloride-Pumping Bacteriorhodopsin Mutant. Biochemistry, 2006, 45, 10633-10640.	1.2	21

#	Article	IF	Citations
235	Internal Water Molecules of the Proton-Pumping Halorhodopsin in the Presence of Azide. Journal of the American Chemical Society, 2006, 128, 6294-6295.	6.6	25
236	FTIR Study of the Photoisomerization Processes in the 13-cis and All-trans Forms of Anabaena Sensory Rhodopsin at 77 K. Biochemistry, 2006, 45, 4362-4370.	1.2	57
237	Structural Changes in Bacteriorhodopsin following Retinal Photoisomerization from the 13-Cis Form. Biochemistry, 2006, 45, 10674-10681.	1.2	25
238	Structural Changes in the Schiff Base Region of Squid Rhodopsin upon Photoisomerization Studied by Low-Temperature FTIR Spectroscopyâ€. Biochemistry, 2006, 45, 2845-2851.	1.2	38
239	Identification of the CO Stretching Vibrations of FMN and Peptide Backbone by13C-Labeling of the LOV2 Domain ofAdiantumPhytochrome3. Biochemistry, 2006, 45, 15384-15391.	1.2	47
240	Assignment of the Vibrational Modes of the Chromophores of Iodopsin and Bathoiodopsin: Low-Temperature Fourier Transform Infrared Spectroscopy of 13C- and 2H-Labeled Iodopsins. Biochemistry, 2006, 45, 1285-1294.	1.2	14
241	Assignment of the Hydrogen-Out-Of-Plane and -in-Plane Vibrations of the Retinal Chromophore in the K Intermediate ofpharaonisPhoborhodopsinâ€. Biochemistry, 2006, 45, 11836-11843.	1.2	26
242	1P412 Identification of the N-H stretch of Asn1008 by FTIR spectroscopy in the LOV2 domain of Adiantum Phytochrome3(17. Light driven system,Poster Session,Abstract,Meeting Program of EABS &BSJ 2006). Seibutsu Butsuri, 2006, 46, S249.	0.0	0
243	1P413 Role of Phe-1010 in the light-induced structural changes of LOV2 domain of Adiantum Phytochrome3(17. Light driven system,Poster Session,Abstract,Meeting Program of EABS &BSJ) Tj ETQq1 1 0.784314 rgBT /Overlo	0.0	0
244	1P418 FTIR study of Internal Water Molecules in the Schiff Base Region of Proteorhodopsin(17. Light) Tj ETQq0 0 0 rgBT /Overlock 10 Tf S251.	0.0	0
245	1P421 FTIR Study of the O Intermediate in the Complex between pharaonis Phoborhodopsin and Its Cognate Transducer(17. Light driven system,Poster Session,Abstract,Meeting Program of EABS &BSJ) Tj ETQq1 1 0.784314 rgBT	0.0	0
246	1P441 Color Tuning of the Rhodopsin Chromophore Using Clay(17. Light driven system,Poster) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	0.0	0
247	1P511 Kinetic analysis of bacteriorhodopsin photocycle by transforming time-resolved FTIR spectroscopic data into a 2D-lifetime distribution(25. New methods and tools (I),Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.0	0
248	2P306 H-D unexchangeable N-H group of Trp182 in Bacteriorhodopsin(41. Proton and ion) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td S372.	0.0	0
249	2P330 Photochromism of Anabaena sensory rhodopsin(42. Sensory signal transduction,Poster) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
250	1P436 Structural Changes in the L_2-intermediate of pharaonis Halorhodopsin Studied by FTIR Spectroscopy(17. Light driven system,Poster Session,Abstract,Meeting Program of EABS &BSJ 2006). Seibutsu Butsuri, 2006, 46, S255.	0.0	0
251	Photochemistry in Phototropin, a Blue Light Sensor Protein in Plants. Journal of the Chinese Chemical Society, 2006, 53, 67-73.	0.8	2
252	Strongly hydrogen-bonded water molecule is observed only in the alkaline form of proteorhodopsin. Chemical Physics, 2006, 324, 705-708.	0.9	35

#	Article	IF	Citations
253	Deprotonation of Glu234 during the photocycle of Natronomonas pharaonis halorhodopsin. Chemical Physics Letters, 2006, 432, 545-547.	1.2	18
254	Functional Importance of the Interhelical Hydrogen Bond between Thr204 and Tyr174 of Sensory Rhodopsin II and Its Alteration during the Signaling Process. Journal of Biological Chemistry, 2006, 281, 34239-34245.	1.6	54
255	Water structural changes in the activation process of the LOV2 domain of Adiantum phytochrome3. Journal of Molecular Structure, 2005, 735-736, 259-265.	1.8	5
256	Unique temperature dependence in the adduct formation between FMN and cysteine S-H group in the LOV2 domain of Adiantum phytochrome3. Chemical Physics Letters, 2005, 410, 59-63.	1.2	13
257	Redox-induced Protein Structural Changes in Cytochrome bo Revealed by Fourier Transform Infrared Spectroscopy and [13C]Tyr Labeling. Journal of Biological Chemistry, 2005, 280, 32821-32826.	1.6	10
258	Strongly hydrogen-bonded water molecules in the Schiff base region of rhodopsins. Photochemical and Photobiological Sciences, 2005, 4, 661.	1.6	51
259	FTIR Studies of Internal Water Molecules in the Schiff Base Region of Bacteriorhodopsinâ€. Biochemistry, 2005, 44, 7406-7413.	1.2	98
260	Comparative Investigation of the LOV1 and LOV2 Domains inAdiantumPhytochrome3â€. Biochemistry, 2005, 44, 7427-7434.	1.2	52
261	Reactive Cysteine Is Protonated in the Triplet Excited State of the LOV2 Domain in Adiantum Phytochrome3. Journal of the American Chemical Society, 2005, 127, 1088-1089.	6.6	102
262	Strongly Hydrogen-Bonded Water Molecule Present near the Retinal Chromophore ofLeptosphaeriaRhodopsin, the Bacteriorhodopsin-like Proton Pump from a Eukaryoteâ€. Biochemistry, 2005, 44, 15159-15166.	1.2	41
263	Hydrogen-Bonding Alterations of the Protonated Schiff Base and Water Molecule in the Chloride Pump ofNatronobacterium pharaonisâ€. Biochemistry, 2005, 44, 12279-12286.	1.2	67
264	FTIR Spectroscopy of the All-Trans Form ofAnabaenaSensory Rhodopsin at 77 K:Â Hydrogen Bond of a Water between the Schiff Base and Asp75â€. Biochemistry, 2005, 44, 12287-12296.	1.2	57
265	Structural Changes of the Complex betweenpharaonisPhoborhodopsin and Its Cognate Transducer upon Formation of the M Photointermediateâ€. Biochemistry, 2005, 44, 2909-2915.	1.2	52
266	Internal water molecules of light-driven chloride pump proteins. Chemical Physics Letters, 2004, 392, 330-333.	1.2	30
267	Role of Hydrogen-Bond Network in Energy Storage of Bacteriorhodopsin's Light-Driven Proton Pump Revealed by ab Initio Normal-Mode Analysis. Journal of the American Chemical Society, 2004, 126, 10516-10517.	6.6	65
268	FTIR Spectroscopy of the O Photointermediate inpharaonisPhoborhodopsinâ€. Biochemistry, 2004, 43, 5204-5212.	1.2	27
269	FTIR Spectroscopy of the K Photointermediate ofNeurosporaRhodopsin:Â Structural Changes of the Retinal, Protein, and Water Molecules after Photoisomerizationâ€. Biochemistry, 2004, 43, 9636-9646.	1.2	61
270	Altered Hydrogen Bonding of Arg82 during the Proton Pump Cycle of Bacteriorhodopsin:â€‰ A Low-Temperature Polarized FTIR Spectroscopic Study. Biochemistry, 2004, 43, 9439-9447.	1.2	32

#	Article	IF	Citations
271	Role of Gln1029 in the Photoactivation Processes of the LOV2 Domain in Adiantum Phytochrome3. Biochemistry, 2004, 43, 8373-8379.	1.2	116
272	Hydration switch model for the proton transfer in the Schiff base region of bacteriorhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1658, 72-79.	0.5	82
273	Vibrational Analysis of Internal Water Molecules in Bacteriorhodopsin. Seibutsu Butsuri, 2004, 44, 113-117.	0.0	6
274	Structural Changes of Water in the Schiff Base Region of Bacteriorhodopsin:â€‰ Proposal of a Hydration Switch Model. Biochemistry, 2003, 42, 2300-2306.	1.2	84
275	Structural Changes of Water Molecules during the Photoactivation Processes in Bovine Rhodopsinâ€. Biochemistry, 2003, 42, 9619-9625.	1.2	72
276	Light-Induced Structural Changes in the LOV2 Domain of Adiantum Phytochrome3 Studied by Low-Temperature FTIR and UVâ^'Visible Spectroscopy. Biochemistry, 2003, 42, 8183-8191.	1.2	107
277	Water Molecules in the Schiff Base Region of Bacteriorhodopsin. Journal of the American Chemical Society, 2003, 125, 13312-13313.	6.6	94
278	Vibrational Modes of the Protonated Schiff Base inpharaonisPhoborhodopsinâ€. Biochemistry, 2003, 42, 7801-7806.	1.2	26
279	Isomer-Specific Interaction of the Retinal Chromophore with Threonine-118 in Rhodopsinâ€. Journal of Physical Chemistry A, 2002, 106, 1969-1975.	1.1	39
280	Excited-State Dynamics ofpharaonisPhoborhodopsin Probed by Femtosecond Fluorescence Spectroscopyâ€. Journal of Physical Chemistry A, 2002, 106, 2091-2095.	1.1	23
281	Interaction of Asn105 with the Retinal Chromophore during Photoisomerization of pharaonis Phoborhodopsin. Biochemistry, 2002, 41, 4554-4559.	1.2	26
282	Photoreaction of the Cysteine Sâ^'H Group in the LOV2 Domain ofAdiantumPhytochrome3. Journal of the American Chemical Society, 2002, 124, 11840-11841.	6.6	75
283	Vibrational Frequency and Dipolar Orientation of the Protonated Schiff Base in Bacteriorhodopsin before and after Photoisomerizationâ€. Biochemistry, 2002, 41, 6026-6031.	1.2	91
284	Structural Changes of pharaonis Phoborhodopsin upon Photoisomerization of the Retinal Chromophore:â€‰ Infrared Spectral Comparison with Bacteriorhodopsin. Biochemistry, 2001, 40, 9238-9246.	1.2	104
285	Internal Water Molecules of pharaonis Phoborhodopsin Studied by Low-Temperature Infrared Spectroscopy. Biochemistry, 2001, 40, 15693-15698.	1.2	64
286	Chloride Effect on Iodopsin Studied by Low-Temperature Visible and Infrared Spectroscopiesâ€. Biochemistry, 2001, 40, 1385-1392.	1.2	29
287	Photoisomerization in rhodopsin. Biochemistry (Moscow), 2001, 66, 1197-1209.	0.7	187
288	Excited-state dynamics of rhodopsin probed by femtosecond fluorescence spectroscopy. Chemical Physics Letters, 2001, 334, 271-276.	1.2	94

#	Article	IF	Citations
289	Tight Asp-85-Thr-89 association during the pump switch of bacteriorhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 1571-1576.	3.3	81
290	Local and distant protein structural changes on photoisomerization of the retinal in bacteriorhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 4643-4648.	3.3	54
291	Role of internal water molecules in bacteriorhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1460, 177-191.	0.5	215
292	Water Structural Changes Involved in the Activation Process of Photoactive Yellow Proteinâ€. Biochemistry, 2000, 39, 7902-7909.	1.2	46
293	Direct Observation of the Bridged Water Stretching Vibrations Inside a Protein. Journal of the American Chemical Society, 2000, 122, 11745-11746.	6.6	87
294	Structural Change of Threonine 89 upon Photoisomerization in Bacteriorhodopsin As Revealed by Polarized FTIR Spectroscopyâ€. Biochemistry, 1999, 38, 9676-9683.	1.2	65
295	Existence of Two L Photointermediates of Halorhodopsin fromHalobacterium salinarum, Differing in Their Protein and Water FTIR Bandsâ€. Biochemistry, 1999, 38, 9449-9455.	1.2	38
296	Effect of Anion Binding on Iodopsin Studied by Low-Temperature Fourier Transform Infrared Spectroscopy. Biochemistry, 1999, 38, 11749-11754.	1.2	12
297	Protein Structural Changes in Bacteriorhodopsin upon Photoisomerization As Revealed by Polarized FTIR Spectroscopy. Journal of Physical Chemistry B, 1998, 102, 7899-7905.	1.2	80
298	Interaction between Photoactivated Rhodopsin and the C-Terminal Peptide of Transducin Î±-Subunit Studied by FTIR Spectroscopyâ€. Biochemistry, 1998, 37, 15816-15824.	1.2	34
299	Polarized FTIR Spectroscopy Distinguishes Peptide Backbone Changes in the M and N Photointermediates of Bacteriorhodopsin. Journal of the American Chemical Society, 1998, 120, 4546-4547.	6.6	25
300	Rhodopsin Emission in Real Time:Â A New Aspect of the Primary Event in Vision. Journal of the American Chemical Society, 1998, 120, 9706-9707.	6.6	67
301	Cysteine Sâˆ'H as a Hydrogen-Bonding Probe in Proteins. Journal of the American Chemical Society, 1998, 120, 5828-5829.	6.6	53
302	Report on US-Japan Seminar on "Structural Basis of Information Transfer and Energy Transduction in Rhodopsins". Seibutsu Butsuri, 1998, 38, 30-32.	0.0	0
303	Time-Resolved Fourier Transform Infrared Study of Structural Changes in the Last Steps of the Photocycles of Glu-204 and Leu-93 Mutants of Bacteriorhodopsin. Biochemistry, 1997, 36, 5134-5141.	1.2	56
304	Trp86 â†' Phe Replacement in Bacteriorhodopsin Affects a Water Molecule near Asp85 and Light Adaptationâ€. Biochemistry, 1997, 36, 5493-5498.	1.2	32
305	Water and Peptide Backbone Structure in the Active Center of Bovine Rhodopsinâ€. Biochemistry, 1997, 36, 6164-6170.	1.2	74
306	Transmembrane Signaling Mediated by Water in Bovine Rhodopsin. Photochemistry and Photobiology, 1997, 66, 796-801.	1.3	22

#	Article	IF	Citations
307	Glutamic Acid 204 is the Terminal Proton Release Group at the Extracellular Surface of Bacteriorhodopsin. Journal of Biological Chemistry, 1995, 270, 27122-27126.	1.6	227
308	Conversion of bacteriorhodopsin into a chloride ion pump. Science, 1995, 269, 73-75.	6.0	240
309	Light-Driven Chloride Ion Transport by Halorhodopsin from Natronobacterium pharaonis. I. The Photochemical Cycle. Biochemistry, 1995, 34, 14490-14499.	1.2	110
310	Interaction of tryptophan-182 with the retinal 9-methyl group in the L intermediate of bacteriorhodopsin. Biochemistry, 1995, 34, 577-582.	1.2	83
311	FTIR Spectroscopy Reveals Microscopic Structural Changes of the Protein around the Rhodopsin Chromophore upon Photoisomerization. Biochemistry, 1995, 34, 14220-14229.	1.2	84
312	Femtosecond fluorescence study of the rhodopsin chromophore in solution. Journal of the American Chemical Society, 1995, 117, 2669-2670.	6.6	117
313	Nanosecond time-resolved infrared spectroscopy distinguishes two K species in the bacteriorhodopsin photocycle. Biophysical Journal, 1995, 68, 2073-2080.	0.2	44
314	Ultrafast Spectroscopy as a Challenger in Biophysics. Primary Processes in Retinal Proteins.. Seibutsu Butsuri, 1994, 34, 149-155.	0.0	0
315	Excited-state dynamics of a protonated Schiff base of all-trans retinal in methanol probed by femtosecond fluorescence measurement. Chemical Physics Letters, 1993, 216, 126-172.	1.2	73
316	Photoisomerization mechanism of the rhodopsin chromophore: picosecond photolysis of pigment containing 11-cis-locked eight-membered ring retinal.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 4072-4076.	3.3	57
317	Primary photochemical events in halorhodopsin studied by subpicosecond time-resolved spectroscopy. The Journal of Physical Chemistry, 1992, 96, 6066-6071.	2.9	51
318	Bathoiodopsin, a primary intermediate of iodopsin at physiological temperature.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 8908-8912.	3.3	31
319	DEPENDENCY OF PHOTON DENSITY ON PRIMARY PROCESS OF CATTLE RHODOPSIN. Photochemistry and Photobiology, 1989, 49, 181-184.	1.3	26
320	Absolute absorption spectra of batho- and photorhodopsins at room temperature. Picosecond laser photolysis of rhodopsin in polyacrylamide. Biophysical Journal, 1989, 56, 453-457.	0.2	37
321	DEPENDENCY OF APPARENT RELATIVE QUANTUM YIELD OF ISORHODOPSIN TO RHODOPSIN ON THE PHOTON DENSITY OF PICOSECOND LASER PULSE. Photochemistry and Photobiology, 1988, 48, 93-97.	1.3	10
322	Retinal Binding Proteins. , 0, , 53-75.		22
323	A Unified View on Varied Ultrafast Dynamics of the Primary Process in Microbial Rhodopsins. Angewandte Chemie, 0, , .	1.6	1
324	Cisâ€Trans Reisomerization Precedes Reprotonation of the Retinal Chromophore in the Photocycle of Schizorhodopsin 4. Angewandte Chemie, 0, , .	1.6	0